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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,776	09/10/2003	Thomas E. Mullan	116807	3910

25944 7590 12/13/2006

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EXAMINER	
AJAYI, JOEL	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,776	MULLAN ET AL.	
	Examiner	Art Unit	
	Joel Ajayi	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/10/03, 6/9/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement submitted on 9/10/03, 6/9/06 has been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 5, 7-15, 17-21, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by **Dent et al. (U.S. Patent Application Number: 2002/0168973).**

Consider **claim 1;** Dent clearly discloses a mobile platform high-speed broadband communication system for a mobile platform, the mobile platform high-speed broadband communications system comprising:

A mobile communication terminal having a single first antenna; a satellite in two-way communication with the mobile communication terminal through the first antenna; and a base station in two-way communication with the satellite wherein a return link signal is transmitted from the first antenna of the mobile communication terminal to the satellite on a first frequency wherein the return link signal is retransmitted from the communication satellite to the base

station on a second frequency; a forward link signal is transmitted from the base station to the satellite on a first frequency; the forward link signal is retransmitted from the satellite to the first antenna of the mobile communication terminal on the second frequency; and the forward link signal is received by the first antenna (paragraph 12, lines 1-7; paragraph 15, lines 1-5).

Consider **claim 11;** Dent clearly discloses a method for high-speed broadband communicating for a mobile platform, the method comprising: transmitting a first signal from a mobile antenna on a first frequency; receiving the first signal at a satellite; transmitting the first signal from the satellite to a base station on a second frequency; receiving the first signal at the base station; transmitting a second signal from the base station to the satellite on the first frequency; receiving the second signal at the satellite; transmitting the second signal from the satellite to the mobile antenna on the second frequency; and receiving the second signal at the mobile antenna (paragraph 12, lines 1-7).

Consider **claim 18;** Dent clearly discloses a method for high-speed broadband communicating for a mobile platform, the method comprising: generating a first signal at a user workstation in a mobile communications platform; transmitting the first signal from the user workstation to a communications terminal including an antenna; transmitting the first signal from the antenna to a satellite on a first frequency; receiving the first signal at the satellite; transmitting the first signal from the satellite to a base station on a second frequency (paragraph 12, lines 1-7);

Relaying the first signal from the base station to a node of a remote network; generating a second signal at the node of the network; transmitting the second signal from the node of the

network to the base station (this is inherent because a base station connected to a telephone network/the Internet will transmit signals in both directions) (paragraph 11, lines 9-13);

Transmitting the second signal from the base station (first station) to the satellite on the first frequency; receiving the second signal at the satellite; transmitting the second signal from the satellite to the mobile communications platform (second station) on the second frequency (paragraph 12, lines 1-7); receiving the second signal transmitted from the satellite to the mobile communications platform at the antenna of the communications terminal; transmitting the second signal from the antenna of the communications terminal to the user workstation (slave station); and receiving the second signal at the user workstation (paragraph 13, lines 1-12)

Consider **claim 4;** Dent clearly discloses the mobile platform high-speed broadband communication system for a mobile platform according to **claim 1**, wherein:

The return link signal from the mobile communication terminal (second station) to the communication satellite and the forward link signal from the base station (network station/ first station) to the communication satellite are received by a single transponder of the satellite (paragraph 11, lines 1-4; paragraph 24, lines 4-9; 21-25); and

The forward link signal from the communication satellite to the base station and the return link signal from the satellite to the first antenna of the mobile communication terminal are transmitted by the single transponder of the satellite (paragraph 11, lines 1-4; paragraph 24, lines 4-9; 21-25).

Consider **claim 5;** Dent clearly discloses the mobile platform high-speed broadband communication system for a mobile platform according to **claim 1**, further comprising a remote

network in communication with the base station wherein the mobile communication terminal and the antenna are part of the mobile platform (paragraph 11, lines 9-13).

Consider **claim 7;** Dent clearly discloses the mobile platform high-speed broadband communications system for a mobile platform according to **claim 5**, wherein the remote network is the Internet (paragraph 11, lines 9-13).

Consider **claim 8;** Dent clearly discloses the mobile platform high-speed broadband communications system for a mobile platform according to **claim 5**, wherein: the communication between the remote network and the base station is two-way communication; the return link signal is a request for data from the Internet; and the forward link signal is a response to the request (paragraph 11, lines 9-13; paragraph 12, lines 1-7).

Consider **claim 9;** Dent clearly discloses the mobile platform high-speed broadband communications system for a mobile platform according to **claim 1**, wherein the mobile platform further comprises a data entry device (portable wireless telephone) in communication with the antenna of the mobile communications terminal; and the communication between the data entry device and the antenna is two-way communication (paragraph 11, lines 1-4, 9-13).

Consider **claim 10;** Dent clearly discloses the mobile platform high-speed broadband communications system for a mobile platform according to **claim 1**, wherein the mobile communications terminal further comprises a second antenna in communication with a receiver other than the satellite (paragraph 27, lines 9-12).

Consider **claim 12;** Dent clearly discloses the method of **claim 11**, wherein transmitting the first signal and transmitting the second signal comprise transmitting the first and second signals at different times (paragraph 13, lines 1-12).

Consider **claim 13;** Dent clearly discloses the method of **claim 12**, further comprising generating the second signal in response to the first signal (paragraph 5, lines 2-13; paragraph 13, lines 1-12).

Consider **claim 14;** Dent clearly discloses the method of **claim 12**, further comprising generating the first signal in response to the second signal (paragraph 5, lines 2-13; paragraph 13, lines 1-12).

Consider **claim 15;** Dent clearly discloses the method of **claim 11**, further comprising generating the first signal in response to an input by a user at a workstation (network station) that is associated with the mobile platform (paragraph 13, lines 1-12).

Consider **claim 17;** Dent clearly discloses the method of **claim 11**, wherein: receiving the first signal and the second signal at the satellite comprise receiving the first signal and the second signal at a single transponder of the satellite; and transmitting the first signal and the second signal from the satellite comprise transmitting the first signal and the second signal by the single transponder of the satellite (paragraph 11, lines 1-4; paragraph 24, lines 4-9; 21-25).

Consider **claim 19;** Dent clearly discloses the method of **claim 18**, wherein transmitting the first signal and transmitting the second signal comprise transmitting the first and second signals at different times (paragraph 13, lines 1-12).

Consider **claim 20;** Dent clearly discloses the method of **claim 19**, further comprising generating the second signal in response to the first signal (paragraph 5, lines 2-13; paragraph 13, lines 1-12).

Consider **claim 21;** Dent clearly discloses the method of **claim 19**, further comprising generating the first signal in response to the second signal (paragraph 5, lines 2-13; paragraph 13,

lines 1-12).

Consider **claim 23;** Dent clearly discloses the method of **claim 18**, wherein: receiving the first signal and the second signal at the satellite comprise receiving the first signal and the second signal at a single transponder of the satellite; and transmitting the first signal and the second signal from the satellite comprise transmitting the first signal and the second signal by the single transponder of the satellite (paragraph 11, lines 1-4; paragraph 24, lines 4-9; 21-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 3, 6, 16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dent et al. (U.S. Patent Application Number: 2002/0168973)** in view of **Rosen (U.S. Patent Number: 4872015).**

Consider **claim 2;** Dent clearly discloses the claimed invention except that the mobile communication terminal and the first antenna are in an aircraft.

In the same field of endeavor Rosen clearly discloses that the mobile communication terminal and the first antenna are in an aircraft (column 4, lines 31-34).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Dent in order to provide the advantages of frequency reusability and frequency addressability in the uplink and downlink transmissions of the mobile users.

Consider **claim 3;** the combination above clearly discloses the mobile platform high-speed broadband communication system for a mobile platform according to **claim 1** wherein the mobile platform includes the mobile platform includes the mobile communication terminal and the first antenna, and the first antenna is capable of maintaining a communication lock on the satellite when the mobile platform is in motion (Rosen, column 3, lines 22-32; column 4, lines 31-34).

Consider **claim 6;** the combination above clearly discloses the mobile platform high-speed broadband communication system for a mobile platform according to **claim 5** wherein the remote network is a private network (Rosen, column 6, lines 33-36).

Consider **claim 16;** the combination above clearly discloses the method of **claim 11**, wherein the mobile platform is an airborne aircraft (Rosen, column 4, lines 31-34).

Consider **claim 22;** the combination above clearly discloses the method of **claim 18**, wherein the mobile platform is an airborne aircraft (Rosen, column 4, lines 31-34).

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Joel Ajayi

December 06, 2006

NICK CORSARO
SUPERVISORY PATENT EXAMINER
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